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ABSTRACT

A random sample of 250 Hutchinson Community Junior College (Kansas) students was chosen by using the pseudo-random number generator supplied by an IBM program. Composite American College Testing Program (ACT) scores were determined for these students, and a questionnaire was administered to determine the factors affecting the students' college choice. Students were divided into three categories: academic transfer students; one, two, or three year terminal students; and continuing education students. Academic transfer students were found to have higher composite ACT scores than terminal students of either type. But the reasons and factors affecting the students' college choice proved to be statistically the same for all groups. The more pragmatic character of the community college student is probably generated in the student's pre-college years. Emphasis on the practical application of education necessarily deemphasizes the academic achievement that is measured by the ACT. Although this phenomenon is most marked in a comparison between students of four-year institutions and students of community colleges, it is seen to carry over to the divisions within the community college itself; i.e., academic transfer students are more academically oriented than terminal students. A survey of the literature is included, and the questionnaire is appended. (NHM)

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A COMPARISON BETWEEN THREE GROUPS OF HUTCHINSON COMMUNITY JUNIOR COLLEGE STUDENTS ON THE AMERICAN COLLEGE TESTING PROGRAM'S COMPOSITE SCORE AND ON THE REASONS AND FACTORS AFFECTING THE STUDENT'S COLLEGE CHOICE

BY

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Chapter I

THE NATURE OF THE STUDY

Introduction

The community college must study its potential students--their changing needs, interests, values, and activities--if it is to construct a future that is a realistic response to the community that supports it.[1] Failure to take into account the characteristics of community groups now without opportunity for education after high school will result in either a diminution of the college's influence in the community or a drift toward mediocrity, or both.

It is no longer enough to be accessible, open-door, free, and comprehensive.[2] The community colleges must go out into their service areas to survey their potential clienteles, while continuing to assess their impact on their enrolled students.

Statement Of Problem

Hutchinson Community Junior College (hereafter referred to as HCJC) is concerned about its student

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[1]Dorothy M. Knoell, Potential Student Clienteles, Educational Resources Information Center, ERIC Document, Junior College Research Review, Washington, D.C.: American Association of Junior Colleges, October, 1969.

[2]Ibid.

population. In this time of declining enrollments, HCJC has a desire to learn what attracts students to the college and how to retain these students. HCJC wants to know about its students, what their interests and expectations are, and how the college can help meet these needs.

Therefore, the purpose of this study shall be to (1) make comparisons between academic transfer students, one, two, or three year terminal students, and continuing education students in reference to composite ACT test scores and (2) make comparisons between academic transfer students, one, two, or three year terminal students, and continuing education students in reference to what factors led to their decision to attend HCJC.

The Deduced Consequences

The results of this study should be of particular interest to the trustees, administrators, and faculty of HCJC. With some indication of student attitudes, improvement of curriculum and instruction may be made. This study may also be of use to high school counselors in that it may give some indication of how student attitudes and proficiency levels affect college choice. Finally, this study might be useful to personnel in four-year institutions who are interested in the junior college transfer student.

Thus, the consequences or uses of this study appear to be: (1) improved curriculum and/or instruction for HCJC, (2) a tool to be used by high school counselors in directing

their students to junior colleges, and (3) a means by which four-year college personnel can assess the junior college transfer student's proficiency level (in terms of the composite ACT score) and factors for attending a junior college so the four-year school can better serve the junior college transfer student.

The Population and Sample

The Population. The population of the study included all students enrolled for the 1974 fall semester at Hutchinson Community Junior College. This population included the academic transfer students, terminal students, and the continuing education students. All students at both of the school's main campuses were included in the population. Also, inmates from the Kansas State Industrial Reformatory were included in the study. These inmates were the ones taking college courses at the reformatory.

The Sample. In order to get a truly random sample, the researcher used the pseudorandom number generator supplied by International Business Machines to get a sample of two hundred fifty random numbers. This list of numbers was then used to determine which student's names would be used from an alphabetical list. The numbers were then matched to the list. Thus, the names chosen were strictly random. The two hundred fifty names represented about 10.9% of the total student population (the total population was 2,280). Of these two hundred and fifty students, data was

gathered from two hundred thirty-five. Of this number one hundred forty were males (59.6%) and ninety-five were females (40.4%). This compared with the population in which 61.8% were males and 38.2% were females.

The researcher felt it important to note that the sample was representative of a community college in central Kansas. Accordingly, most of the respondents seemed to be middle-class oriented in their socioeconomic status as well as their value orientations. Although there may have been some question about the specific backgrounds (that is, urban versus rural) most of the respondents seemed to be middle-class. Thus, although the sample pointed to specific differences between individuals, collectively the sample would have been representative of the entire population of the college.

Limitations of the Study

The reader should note that any results of this study are limited to the data collected from the students at HCJC. The researcher is in no way trying to make conclusions about any other community college.

Hypotheses

The following statements were the hypotheses conducted and tested in this study:

1. There is no significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal student in composite ACT test scores.
2. There is no significant difference between the HCJC academic transfer student and the HCJC continuing education student in composite ACT test scores.
3. There is no significant difference between the HCJC one, two, or three year terminal student and the HCJC continuing education student in composite ACT test scores.
4. There is no significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal student in the factors affecting his college choice.
5. There is no significant difference between the HCJC academic transfer student and the HCJC continuing education student in the factors affecting his college choice.
6. There is no significant difference between the HCJC one, two, or three year terminal student and the continuing education student in the factors affecting his college choice.

Procedure For Study

The following procedures were used in the pursuit of this study.

1. Initially, a random sample of two hundred fifty students was chosen by using the pseudorandom number generator supplied by IBM.
2. These students' (individually) composite ACT test scores were determined.
3. At this point, a questionnaire was administered to the students selected in the random sample.
4. Upon return of the questionnaires, students were broken into three categories: academic transfer student, one, two, or three year terminal student, and continuing education student.
5. For each of the categories the mean and standard deviation was determined. Then, the "Student's" t distribution was calculated. Thus, the difference of the means was the significant test to determine whether or not to accept the hypothesis.
6. Returning to the questionnaire, students' responses to the question dealing with factors influencing college choice was used. Since the students had ranked the factors for their choice of HCJC on the questionnaire, this information was tested for significance by using the Mann-Whitney Test which is a rank-sum test.
7. Because the Mann-Whitney Test was capable of determining whether two samples come from identical populations

or whether these populations have unequal means, these results were used to indicate whether or not the initial hypotheses concerning factors influencing college choice are true.

8. Upon completion of this study, results were given to the appropriate individuals at Wichita State University and the following individuals at HCJC: President, Academic Dean, Dean of Admissions and Records, Dean of Student Services, and the Board of Trustees.

Key Terms

1. ACT composite score:
   The average of the combined standard scores on the English, Mathematics, Social Sciences, and Natural Sciences tests of the ACT program. The minimum score is one, and the maximum score is thirty-five.
2. Reasons and factors influencing college choice:
   (1) Intellectual emphasis-consideration of the quality of the faculty and scholastic standards, the type of curriculum, the intellectual atmosphere, and reputation of the school.
   (2) Practicality-consideration of the desirability of location of a school, its distance from a student's home and its cost.
   (3) Advice of others, including parents, high school teachers and counselors, and college alumni.

(4) Social emphasis- the school's social climate and extracurricular activities.

(5) Emphasis on religious and ethical values.

(6) Size of the school.

3. Academic transfer student - a student who upon completion of his associate of arts degree intends to continue his education in a baccalaureate oriented sequence.

4. One, two, three year terminal student - a student who enrolls in a program which is vocationally oriented. This student generally seeks employment in his area upon completion of the course work requirements.

5. Continuing education - any student who enters or returns to the college for course work in any area. This student may already hold a degree, be working toward a degree, seeking vocational training or retraining, or seeking more educational enrichment.

Chapter II

REVIEW OF THE LITERATURE

When doing a study related to student choices, importance must be placed upon the question why those choices were made. Such was the case with this study. Initially, a discussion of values and decision-making related to those values will be presented. Then, related studies and pertinent opinions will be given to help substantiate some of the conclusions made about values and decision-making--particularly as they relate to community college students.

The Nature of Values and Decision-Making

During the present decade, accelerating technological and social change will necessitate major changes in traditional life styles, and these changes, in turn, will modify many of our values.[1] In essence, individuals today are searching for a coherent value system or philosophy of life which can hold its own against the impact of science and technology on society and provide meaning for

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[1]James C. Coleman and Constance L. Hammen, Contemporary Psychology and Effective Behavior. Glenview, Illinois: Scott, Foresman and Company, 1974, p. 485.

their own existence in the world and for humanity's role in the universe. Technology has provided man with an increasing mastery of the secrets of nature, to the conquest of disease, and to spectacular cultural advances. On the other hand, man sees the dangers of a divided world, of nuclear warfare, of a population explosion, of an ecological destruction, and of poverty side-by-side with affluence. In order for the human race to survive and advance, these problems must be solved. Furthermore, the solution appears to be in man's technological advances and in better understanding of himself and his social systems. Before man can advance collectively, he must understand himself individually and his place in society.

Accordingly, college students are faced with a similar dilemma. Should they pursue a course of study for technological advances, or should they place emphasis on the human values? This type of question will ultimately determine not only what course of study they take, but also what type of institution they take it in.

The community college student is no exception. His value orientations will indicate for him what type of career to follow. For example, he may be technically oriented and pursue a career immediately after completion of his program. Or he may transfer to a four-year institution and continue his education. Regardless, his values help him decide what to pursue and where to pursue it.

Assumptions about Values

"A value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action."[2] Generally, there appear to be no ultimate values in the sense of "good" and "evil." Rather, values appear to be compromises between realities and ideals. However, many times choices are based on value judgements which lie in the "gray" area. Thus, in essence, choices are compromises between a perception of "right" and what really exists. Yet in some instances--premeditated murder, mindless brutality and so on--little compromise is possible. For to compromise in choices of this nature would be to destroy the foundations of society.

It follows that values have to be ranked in an hierarchy. Without a hierarchy, no meaning would be attached to the choice. If nothing is thought of as better than anything else, how can a person know which way to grow? Man must choose. If man can confront the responsibility of choosing, then he can live with clarity of purpose.[3]

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[2]C. Kluckhohn, "Values and Value-Orientations in the Theory of Action." In T. Parsons and E. A. Shils (Eds.), Toward a General Theory of Action. Cambridge, Massachusetts: Harvard University Press, 1954, p. 395.

[3]E. M. Drews and L. Lipson, Values and Humanity. New York: St. Martin's Press, 1971, p. 2.

A final assumption about values, is that values have many connotations. All values are what humanity--or some humans--conceive to be good. But goodness is only an abstract form unless it has content. Good is always envisioned in different forms, which must be ranked. Not only must a value be valuable to somebody, but it must also be attached to something--and this attachment can assume many guises.[4]

Value Orientations--the Images of Man

Man is characterized by his ability to develop images of himself and of his relations to the world around him. Humanity is distinguished from other living species by the fact of self-consciousness. Being aware that man exists endows his life with significance. This awareness is translated into symbolic forms which seek to portray not only the individual but also the species. This awareness of image turns out to be a collection of choices or values which man uses for self-evaluation and societal evaluation. These comparisons provide the bases for what has been considered the five basic images of man.

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[4]Ibid, p. 3.

1. Homo homini lupus--man is a wolf to his fellow men. According to this most pessimistic view, man is an antisocial, aggressive and immoral creature whose behavior is stimulated by ever dangerous instincts.

2. Tabula rasa--man is a blank sheet, receiving external impressions. This image portrays humanity as moral and man's nature as ethically neutral. At birth man is a blank sheet and whatever becomes of him is the result of subsequent external stimuli.

3. Man is a mixture of good and evil. Human nature is the union of opposites held together in dynamic tension. The opposites are good and evil and man's behavior is vascillating between the poles of a divided nature.

4. Man is naturally good and can improve himself. According to this image, mankind--all human beings everywhere--is basically good and continuously improvable. Corruption in an individual is seen as perversion of our intrinsic goodness by social institutions.

5. Man will transcend himself. Human beings are believed to be endowed with potentialities beyond anything expressed or realized this far. Every individual is a fountainhead of unlimited possibilities.[5]

To help in the visualization of these images of man, certain value types of ideal men apply. Spranger has developed what he considered the ideal or pure types of men. These included:

1. The theoretical. The theoretical man seeks to discover truth by the use of rational, critical and empirical processes. Thus the theoretical man is often an intellectual--often a scientist or philosopher.

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[5]Drews and Lipson, p. 5-17.

2. The economic. The economic man values what is useful. Tangible wealth and material possessions are of central interest.

3. The esthetic. The esthetic man sees the highest value in form and harmony. His chief interest is in artistic expression.

4. The social. The social man places great emphasis on affiliation and love. The social man values other persons as individuals and tends to be kind and sympathetic.

5. The political. The political man places value on power. He maintains active competition to maintain and expand his power.

6. The religious. The religious man seeks unity. He is mystical and seeks to comprehend and relate himself to the cosmos and to find higher-level value experiences via his religious philosophy.[6]

Spranger contended that these are but ideal types, with each man approaching--but rarely perfectly fitting within--these value directions.[7] Regardless, these value types appealed to man and, in varying degrees, he built the unity of his life around one of these types.

Sources of Values

Few people today have the effrontery to claim they have found the final answers to the mental, moral, spiritual and physical forces which confront them. Therefore, where can the individual find reliable values, and how can

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[6] E. Spranger. "Lebensforman." (3rd. ed.) Holle: Niemeyer, 1923. (Translated: P. Pigors. Types of Men. New York: Stechert, 1928.)

[7] Coleman and Hammen, p. 487.

their validity be determined? How can the individual arrive at a system of values that is stable and at the same time flexible enough to survive change?

In working out a system of values, an individual can turn to four chief sources of understanding: (1) his culture--and other cultures with which he has had contact, (2) science, (3) religion, and (4) life experiences--his own and those of other people.[8]

Culture. The culture of each social group is based on certain implicit and explicit values, and although each individual's values are different from anyone else's, the core values are still grounded in each individual's culture. Kluckhohn and Strodtbeck have suggested that these core values reflect the culture's orientation to five basic and universal human problems:

1. Orientation toward human nature
2. Orientation toward environment
3. Time orientation
4. Activity orientation
5. Interpersonal orientation[9]

Science. Science has the advantage of providing information that has been checked and rechecked by objective methods. Unfortunately, fact is impersonal and

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[8]Coleman and Hammen, p. 490.

[9]F. R. Kluckhohn and F. L. Strodtbeck, Variations in Value Orientation. New York: Harper and Row, 1961.

thus does not contribute to meaning or value. However, science does help provide man with dependable information about our world. And from information man can hopefully follow closer the paths to his goals.

Religion. Religion is based on "revelation" believed to be from God as recorded in tradition and sacred literature. Even though theologians have attempted to apply scientific "proof" to religion, the validity of their beliefs still must rest on faith and judgments or probability.

In terms of values, religion has its most significant impact in the area of "right" and "wrong." Religion has traditionally implied that "good" people do "right" actions according to the word of God. Conversely, "bad" or "evil" people deny or go against God's teachings. These religious orientations may help give some clue as to what the individual values as important.

Experience. In the life of the group and of the individual, many values originate from experience. This experience may be an individual's own experience or an individual drawing on others experience. In either case, the individual becomes a valuing organism. And in the long run, most of the values that actually influence man's behavior are validated by the satisfaction he has experienced in pursuing them. Hence experience becomes a key factor in determining the values man follows and the ones he discards.

Decision Making About College

The value orientations of a student will have a direct bearing on his undergraduate college choice. The selection of a particular undergraduate institution is the outcome of a complex interaction of factors, which include the aspirations, abilities and personality of the student; the values, goals, and socioeconomic status of his parents; the direction of the influence of his friends, teachers, and other reference persons; the size, location, tuition costs, curricular offerings, and other institutional characteristics of various colleges; and the image of these colleges held by the student and by those whose advice he seeks.[10] Although absolute distinctions are virtually impossible, some general indications about the nature of the student's decision about college can be made.

Personal Qualities

The attitudes and values that are learned as young people interact with their environments contribute to the formation of what is popularly considered the personality of the individual.[11] Personality has a direct relationship on what type of an institution a potential college student

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[10]Kenneth A. Feldman and Theodore M. Newcomb, The Impact of College on Students, San Francisco. Jossey-Bass, Inc., 1969, p. 110.

[11]K. Patricia Cross, Beyond the Open Door, San Francisco: Jossey-Bass, Inc., 1971, p. 33.

chooses. For example, Medsker and Trent found that students entering private universities were the least authoritarian of all entering groups of students; those entering public universities were on the average somewhat more authoritarian and those entering public four-or five-year colleges were even more so; students entering two-year public or private colleges were the most authoritarian. With respect to the average degree of intellectual disposition of entering students, the colleges roughly ranked from high to low as follows: (1) private universities; (2) public universities; (3) private four-or five year colleges; (4) public four-or five-year colleges; and (5) public and private junior colleges.[12] Thus, the less authoritarianism among students entering these five types of institutions, the greater the intellectual disposition, on the average.

Since certain attitudes and personality characteristics are themselves associated in varying degrees with intelligence and socioeconomic status, these associations may account for some part of the aforementioned findings. However, it is unlikely that differences in intelligence or socioeconomic background (or both) explain totally all

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[12] L. L. Medsker and J. W. Trent, 1965. The influence of different types of public higher institutions on college attendance from varying socioeconomic and ability levels. U. S. Department of Health, Education and Welfare Cooperative Research Project No. 438. Berkley, California: Center for the Study of Higher Education, University of California.

differences in personality characteristics of entering student bodies.

When dealing with personality factors, an important concept to remember is that most times a student tries to select a college which will "fit in" with the student's image of himself. Silber, Coelho, and others found that students made themselves available to a college according to the student's perception of the college image in comparison to their own personal image.[13] Thus, a student wants to see the college as he sees himself.

Family Background and Previous School Experience

Of importance to a student's decision about the type of college he chooses, are his family's socioeconomic status and his previous school experience. Since these factors are intertwined with and help develop a student's personality, it is essential to look at these factors collectively. However, since emphasis was placed on personality in the previous experience it will be dealt with exclusively here.

Family background is invariably tied in with socioeconomic status. Although a precise definition is impossible, socioeconomic generally implies a "social peck-

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[13] E. Silber, G. V. Coelho et. al., 1961. Adaptive behavior in competent adolescents: coping with the anticipation of college. Archives of General Psychiatry, 5, p. 354-365.

ing order." One must also include size and type of community, size of high school, size of family, plus race and religion.[14] Some general conclusions to be drawn about family background on a prospective student's college choice include:

1. The more rural community a student is from, the less likely he is to attend college.[15]
2. A larger proportion of male than female high school students either expect to go to, or actually enter, college.[16]
3. Relative to other students, those of high socioeconomic background tend to pick and to be picked by private universities.[17]
4. A growing number of New Students (those scoring in the lowest third among national samples of young people on traditional tests of academic ability) are entering college.[18]

Of equal importance to family background are a student's previous school experiences. These include not only the actual day to day classroom attendance but also the advice of teachers and counselors as well as peer group opinion. A student's perception of school on the

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[14] Feldman and Newcomb, p. 115.

[15] N. H. Sewell, 1964. "Community of residence and college plans." American Sociological Review, 31, 159-168.

[16] J. M. Armer and W. E. Schafer, 1966. "High school climate and college plans." Paper read at the 61st Annual Meeting of the American Sociological Association.

[17] Feldman and Newcomb, p. 115.

[18] Cross, p. 15.

whole, plus his peer's attitudes about school, will help mold his opinion about what type (if any) institution he wishes to enter.

Of those students entering college, grades play an important part. From previous school experience, students recognize that grades are symbols of achievement. Interestingly, they are probably most important to those students who have the hardest time getting them. Regardless, the percentages show that most young people consider grades important.[19] Because of the competitive nature of grades, a prospective student may consult his peers in an attempt to find a less demanding college--at least grade wise. This is especially crucial for the border line student who may see his whole future tied up in his ability to pass a certain course or courses.

Another school environmental factor important to a student's choice of college is the high school counselor. Since the duty of the high school counselor is to help acquaint students with certain colleges, he plays an important role in what information about a certain college a particular student receives. In a sense, the counselor helps define the image of the college for the student.[20]

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[19]Ibid, p. 43.

[20]Silber, Coelho, et. al., op. cit., p. 362.

Accordingly, many colleges gear information toward the counselor, so he will give the college a "favorable" image.

The Importance of Institutional Characteristics

Because of the large number of colleges and universities in the United States, researchers have found it convenient to classify them in a manageable number of categories. For example, Rogoff initially divided colleges by the type of the curricular organization, and within these by the type of control.[21] For certain purposes, she further divided the private colleges into men's schools, women's schools and coeducational schools. In technical terms, these are nominal or discrete categories. A college is classified in these categories in terms of its being qualitatively different from schools in some other category, rather than in terms of its having a larger quantity of some trait or characteristic.

Although such nominal classifications are useful, they are not completely satisfactory as devices either to categorize colleges or to measure their environments--especially when interest lies in discovering the impacts of colleges on their students. Classification by nominal,

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[21] N. Rogoff, 1957. Board member colleges: A comparative analysis. New York: Bureau of Applied Social Research, Columbia University.

conventional categories is not directly interpretable in terms of dimensions relevant to impact. Thus there is a possibility that colleges within the familiar classifications are diverse with respect to the impact factors. Therefore, these classifications might conceal the environmental differences that are causing differential impacts.

Regardless of the problem of classification, the characteristics of the college influence a prospective students opinion about the school. A student's decision may be based on what he sees or hears. The curricula offered may be a major decision making factor. Or he may be concerned with the size of the student body or percentage of males versus the percentage of females. Nonetheless, the way he views the characteristics of the college will have an important impact on his decision to attend a certain college.

Decision Making Factors
Among Community College Students

The reasons why a prospective community college student chooses a community college are many and varied. Since the community college is literally that--a community college, importance lies in serving all the individuals of the community. Still, no real accurate list of absolute reasons for attending a community college exists. However, Gleazer has listed areas which he feels are most important in the decision-making process. These include: (1) extended

educational opportunity, (2) accessibility, (3) cost to student, (4) admissions policy, (5) variety of programs, (6) occupational education and (7) a college parallel.[22]

Since a community college student tends to be more practical than his public or private four year counterpart, the factors concerning his decision tend to be more reality and less socially and intellectually oriented.[23] He places value on the more realistic and less philosophic approach to education. Thus, as Gleazer indicated, the community college student is geared toward an education which produces tangible results. Accordingly, he is concerned with the tangible (cost factors) of providing that education.

Another important factor in a prospective student's decision to attend a community college is what has been referred to as the "open door" policy. Community colleges have on the whole admitted what other institutions might considered marginal students. This open door admissions policy is based on the assumption that a much larger proportion of our population could benefit by being educated beyond high school, and that the student can best show what he can do by being allowed to try. His efforts take place in an environment where alternative learning

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[22]Edmund J. Gleazer, Jr. 1968. This Is the Community College. New York: Houghton Mifflin, p. 47-63.

[23]The Two Year College and Its Students: An Empirical Report. 1969, Iowa City, Iowa: The American College Testing Program, Inc., p. 80.

experiences are available to which he can turn within the same institution if they seem more suitable.[24]

In this vein, and of equal importance, is the student who in the past has experienced denial of achievement, possibly as a result of faulty or inadequate educational services. The community college tends to remedy this situation. Thus, there is a place for everyone at the community college, and accordingly, it appeals to all persons.

Related Studies and Pertinent Opinions

Traditionally, most students attending a community college have been considered to be of two types--transfer and terminal. Accordingly, most of the research in this areas used this dichotomy as a basis for comparison. Because most community colleges offer rather easily made and thus make study much easier. Since most of the data in this area pertains to this distinction between transfer and terminal, the researcher chose these types of studies in reference to his particular hypotheses.

Transfer and terminal community college students appeared to differ from each other on ACT composite scores;

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[24]Gleazer, p. 51.

transfer students make higher scores.[25] On the average, terminal students have lower ACT composite scores than transfer students, presumably reflecting the terminal student's lower academic potential.[26] The ACT composite mean is higher for transfer than terminal students. Overall, there appears to be a slight but real difference in ACT composite means between the transfer and terminal student has the higher academic potential.[27]

Many times also, the ACT composite score was paired with the student's high school grades to give some prediction of academic success in college. A study by D. P. Hoyt and L. A. Munday in 1966 confirmed that grades in specific courses and overall grades for community college students can be predicted with satisfactory accuracy by using the ACT composite (and individual) score and the high school grades.[28] Thus, the ACT Composite score, at least in part, may be predictive in terms of future academic success.

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[25] L. A. Munday, "A Comparison of Junior College Students in Transfer and Terminal Curricula," The Two-Year College and Its Students: An Empirical Report. Iowa City, Iowa: The American College Testing Program, Inc., 1969, p. 122.

[26] Ibid., p. 125.

[27] Munday, p. 126.

[28] D. P. Hoyt and L. A. Munday, "Academic Description and Prediction in Junior Colleges." ACT Research Report No. 10. Iowa City, Iowa: American College Testing Program, 1966.

Importance should be placed on the fact that the group studied in the aforementioned research studies differed more on the ACT test results than they did on the high school grades. Munday implied that this fact suggested that perhaps the test scores enter into this type of educational planning more often than high school grades.[29]

In summary, it was an unfortunate occurrence that there was such a small body of research in this area. However, what research there was, seemed to indicate that transfer students did better than terminal students in ACT Composite test results. This appeared to indicate that the transfer student had more academic potential than the terminal student.

Also involved in the review of the literature were related studies and pertinent opinions dealing with factors which helped influence a student's choice of a college. These factors included practicality, advice of others, the social climate, religious and ethical factors and the size of the school.

Community college students appeared to be more influenced by practical considerations and less by

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[29]Munday, p. 127.

intellectual or social emphasis in choosing their college.[30] Similarly, they were more concerned with the instrumental value of the college for a higher income and less concerned with personal intellectual development. They tended to aspire to less than a B. A. degree and reject graduate training as a goal. They tended to major in business, agriculture, or fields not included in a list more suitable for students at four-year colleges,[31] and are less interested in the humanities, science, or the social sciences.

To summarize this pattern, community colleges attracted pragmatic students seeking vocational training; they were less attractive to talented student who are intellectually and academically oriented, who planned a degree in one of the traditional subject areas, and who expected to take part in a wide variety of activities in college. From this pattern one might have guessed that the student attending a two-year college was likely to be the first in his family to attend a college and that for him college was primarily an instrument of social mobility.[32]

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[30]J. M. Richards Jr. and L. A. Braskamp, "Who Goes Where to Junior College," The Two-Year College and Its Students: An Empirical Report. Iowa City, Iowa: The American College Testing Program, Inc., 1969, p. 80.

[31]C. E. Blocker, R. H. Plummer, and R. C. Richardson, Jr. "The Two-Year College: A Social Synthesis. Englewood Cliffs, N. J.: Prentice-Hall, 1965.

[32]Richards and Braskamp, p. 80.

Aside from the practicality of the community college student, other factors helped influence their choice of college. Significant others also played a part. Trent found in 1972 that parents played a dominant role in affecting the student's choice of a college. Secondary influence went to peers and a minor influence went to teachers and counselors.[33] Thus, at least on the surface, parents seemed to have the greatest impact of any of the other groups on a student's choice of a college. However, in the Trent study only one percent of the students questioned said that their main reason for going to a community college was because their parents wanted them to.[34]

Another factor which appeared to be of some significance in a student's choice of a community college was the social climate of the college or more specifically, what extracurricular activities were offered. College administrators have felt that the students are not adequately

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[33]L. L. Medsker, and J. W. Trent. 1965. The influence of different types of public higher institutions on college attendance from varying socio-economic and ability levels. U. S. Department of Health, Education, and Welfare Cooperative Research Project No. 438. Berkley, Calif. Center for the Study of Higher Education, University of California.

[34]Ibid. p. 92.

identifying with the college.[35]

Baird, Richards, and Shevel found that participation in departmental clubs and intramural athletics was fairly common, but participation in other areas was uncommon, especially in debate, acting and science clubs. Of those persons who participate, public recognition of achievements in those areas was rare. Since participating in one area was unrelated to participation in another area, it was likely that a fairly high proportion of community college students were involved in some extracurricular activity.[36]

Another factor which influenced a student's choice of a community college was the importance placed on religious and ethical values. Not unexpectedly, students entering community colleges under sectarian control were more favorably disposed toward religion and were more religiously orthodox than students entering nonsectarian schools.[37] More recent studies tend to support this finding. Students appear to place more importance on esthetic values and less on religious values. Students have tended to change from "traditional" values of morality and achievement toward

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[35]Leonard L. Baird, James M. Richards, Jr. and Linda R. Shevel. "A Description of Graduates of Two-Year Colleges." Iowa City, Iowa: ACT Publications.

[36]Ibid, p. 11.

[37]E. N. P. Nelson. 1940. "Student attitudes toward religion." Genetic Psychology Monographs, 22, 323-423.

moral relativism and "existentialist" emphasis of here-and-now.[38] This may be why community college students, when asked what was their most important goal in attending college, only one-tenth of one percent responded that it was to develop their moral standards.[39]

A final factor affecting a student's choice of a college was the size of the school. Although somewhat similar to religious and ethical considerations, in that size is not of extreme importance, size of a school does have some bearing on a student's choice of a college. In 1961, Barton stated that size was a major but ambiguous attribute of the social structure of organizations. Size itself has certain necessary, formal consequences for the possible range of interpersonal relations, of communications links, and of levels of authority as conditioned by spans of control.[40] Thus, the size of the school may not be important in itself in affecting students but it may be important in creating certain conditions which in turn have impacts on the students.

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[38] Feldman and Newcomb, p. 18-19.

[39] Baird, Richards, and Shevel, p. 5.

[40] A. H. Barton, 1961. "Organizational Measurement and Its Bearing on the Study of College Environments." CEEB Research Monograph, No. 2. New York: College Entrance Examination Board.

George Cooper, Academic Dean of Hutchinson Community Junior College, agreed that size of a school may have some bearing on a student's choice of a college. Mr. Cooper stated, "Many community college students come from rather small rural high schools. Accordingly, many students may be reluctant to go directly to a large university with tens of thousands of students."[41] Students at small schools tend to know most of their peers, whereas in large schools they get to know only a fraction of the student body. Therefore, the student at the large school is apt to feel relatively anonymous vis-a-vis the student body as a whole.[42] Students at a smaller school (in this case a community college) may feel some of the comradeship of their high school.

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[41]George Cooper. Personal interview, April 2, 1975.

[42]W. J. Bowers, 1966. Comments to the Editor. Sociology of Education, 39, 100-105.

Summary

The study of human values was a complex task. Looking at the reasons why a person values one thing over another was often rather difficult. This was true of education. The reasons why a person values one institution over another were as varied as the individuals themselves. Yet, some general patterns could be established. For the most part, junior college students were likely to be attracted to a college for practical reasons--low cost, nearness to home, and because it offered the job training that would lead to a higher income. They did not seek an intellectual atmosphere. They seemed to be influenced in their choice by parents, when a significant other's opinion was consulted. Most community college students tended to participate in extracurricular activites but few received outside recognition for their achievements. The community college student did not seem too influenced by the religious and ethical values of the college. Finally, the size of the college may have had some bearing on a community college student choosing a community college, particularly if the community college was small and the student came from a small high school.

Chapter III

PROCEDURE FOR THE STUDY

The Research Measures Used for the Collection and Analysis of Data

In the study, two measures were used for the collection of data: (1) The American College Testing program's composite scores, and (2) a questionaire formulated by the researcher. To analyze the collected data, the researcher used two common statistical tests of significance: (1) the Student's t score, and (2) Mann-Whitney U test.

Since the American College Testing program (ACT) was well accepted as a means of prediction and placement of high school graduates in a college setting, the researcher chose it as the instrument to give some indication as to the achievement difference between the identified groups of students. Specifically, the ACT composite score was used. This score represented an average of the combined standard scores on the English, Mathematics, Social Sciences, and Natural Sciences tests, thus the researcher assumed a composite score would give a general indication of a student's overall achievement level. The combined average composite score for each identified group was used to make

comparisons between the groups.

The second tool used for the collection of data was a questionnaire (Appendix A) drawn up by the researcher. The questionnaire had a two fold purpose--one, to gather general personal information about the respondent and two, to get the student to rate the factors affecting his selection of HCJC as his college choice. To arrive at conclusions concerning the first purpose, general biographical data was requested. The questions centered around such items as: (1) address, (2) gender, (3) marital status, (4) number of dependents, (5) age, (6) social security number, (7) student classification (full or part-time), (8) source of financing education, and (9) how the respondent viewed himself in terms of the type of student he was (academic transfer, terminal, or continuing). To answer the second purpose of the questionnaire, respondents were asked to rate the factors that influenced their decision to attend HCJC. These factors included: (1) intellectual emphasis, (2) practicality, (3) advice of others, (4) social climate, (5) emphasis on religious and ethical values, and (6) the size of the school. The average score for each of these questions provided the basis for comparison between the groups.

To analyze the data in reference to the composite ACT scores, the "Student's" t distribution was calculated. Since the t distribution was used to test the null hypotheses,

conclusions were made in reference to differences between the group scores.

To test the hypotheses dealing with factors which affect a respondent's choice of schools, the Mann-Whitney U test was used. The U test used ranked data, thus it fit in well with the requirements of this study. Also, because the value of U was rather small, it was easily applied to the research study. Finally, because the Mann-Whitney test was capable of telling whether two samples came from identical populations or whether these populations had unequal means, it was most appropriate to test the hypotheses concerning the factors which affect a student's choice of a college.

The Procedure for the Study

The researcher began the study by using the pseudorandom number generator to obtain two hundred fifty random numbers from the total two thousand two hundred eighty possible. Then, the two hundred fifty numbers were applied to the alphabetized student list to obtain the random sample. This list of two hundred fifty numbers was used to gather composite ACT scores. The list also was used to determine which students would receive the questionnaire.

The next step in the study was to prepare the questionnaire. Using the hypotheses as the objectives, the questionnaire was prepared with items which would answer

the questions posed by the hypotheses. Because the researcher was aware that if the questionnaires were given to the selected students on a sporadic basis a poor response would probably result, a plan was used to help increase the number of questionnaires returned. In the plan, the students in the random sample were grouped according to similar classes. In other words, students in the sample, who had the same class at the same time, would be given the questionnaire simultaneously. To guarantee the questionnaires would be distributed and returned, the researcher requested the instructor of the class to be responsible for the distribution and the picking up of the questionnaires. The instructor had a list of all students in his classes who were to receive the questionnaire. Thus, the instructor not the student was responsible for the return of the questionnaire. As the instructors returned their sets of questionnaires to the researcher, he checked the students names off from the master list. The procedure was successful as two hundred thirty-five out of the two hundred fifty questionnaires were returned. Of these, fourteen were students who had dropped out of school for various personal and academic reasons. The other questionnaire was for an inmate at KSIR. He was transferred to Lansing before he could complete the questionnaire.

Once all the questionnaires had been returned, they were tabulated. In order to tabulate the questionnaires,

they were key punched and processed by a computer program. The most important distinction made by the computer was the separation of the students into the various academic classifications (transfer, terminal, continuing). After the number in each classification was made, distinction was made by gender. From this point, the number of responses from the remaining questions was placed according to the aforementioned student classifications. The computer printout gave a complete listing of all responses, to all questions. From these responses, the researcher was able to apply the Mann-Whitney U test to obtain the results needed to accept or reject the hypotheses concerning the factors involved in the selection of a college.

The second phase of the study dealt with the collection of the ACT composite scores. On the surface this appeared to be a relatively simple procedure. However, the researcher found it to be one of the most difficult and time consuming aspects to the study.

In order to obtain the composite ACT test scores, the researcher needed to receive permission from the Dean of Student Services at HCJC. In the past this would have been a mere formality. However, the Dean expressed concern about the rights of students in terms of privacy. After some discussion, determination was made that the student's individual scores would not be released. Rather, an average composite ACT score would be used for each student classi-

fication (transfer, terminal, continuing). Since no individual student's specific ACT score would be seen, the Dean and the researcher concluded that there would be no infringement on a student's rights.

A second difficulty arose in reference to the composite ACT scores--the scores were more difficult to obtain than originally thought. The ACT scores are filed by student social security number. The researcher had obtained all students' social security numbers from the questionnaire. However, after analysis by the computer it was found that many of the students with social security numbers did not have ACT composite scores. There were some possible explanations for this. One, the student ACT scores may have not been received from ACT. Secondly, some of the scores had not been put on the computer (these were found by hand sorting). Finally, although HCJC requires an ACT score from all of its students, many (especially the continuing education students) had not taken the test. Thus, even though these students were provisionally admitted, they did not have an ACT. These factors helped contribute to the fact that ACT composite scores were found on only only hundred ninety out of the two hundred thirty-five respondents to the questionnaire.

After the student's ACT scores were obtained, they were placed into the researcher's student classifications. These classifications provided the basis of comparison

for the students' t distribution. The average composite ACT scores were used in the t distribution. The comparisons between the groups provided the basis for testing the initial three hypotheses in the researcher's study.

Summary

Overall, the research went rather smoothly, although some difficulties arose with the ACT composite scores. Perhaps the reason why the study went so smoothly, was the cooperation the researcher received from the individuals who helped with the study. Without their cooperation, the study would have been much more difficult and much more time consuming.

Chapter IV

RESEARCH FINDINGS

Introduction

In this stage of the research, the researcher's responsibility was to report the findings of his study. Accurate reporting of the findings was necessary as it was from these findings that the hypotheses were tested and conclusions about the study were drawn.

The Student's t Test

In the first three hypotheses of the study, the researcher was concerned with comparing composite ACT test scores. Because the purpose of the Student's t test was to compare the mean of a random sample consisting of three or more measurements with another sample whose mean was known, the data lent itself to using the Student's t test.

The Student's t was calculated by using the following formula:

$$t = \frac{(M_1 - M_2) - (U_1 - U_2)}{\sqrt{\frac{S^2}{N^1} + \frac{S^2}{N^2}}}$$

The Mann-Whitney U Test

The purpose of the Mann-Whitney U Test was to

compare two unmatched random samples of measurements. Because each measurement is awarded a rank value according to merit (from largest to smallest or vice versa), it should be clear that if the two samples possess the same number of measurements and are actually derived from the same parent group, then each sample group should gain about the same total of rank values. Thus, the data collected lent itself to using the Mann-Whitney U test.

To calculate the Mann-Whitney U score, the following procedure was used. First, the scores of the two groups were ranked together but retaining each score's identity as to the group from which it was drawn. Next, the researcher focused on the N_B group (the researcher assumed N to be the total population with B being the first subset) and counted the number of N_A scores (the researcher assumed N to be the total population with A being the second subset) which were ranked below or precede each score in the N_B group. Hence, the U score equaled the number of times an N_A score preceded an N_B score. By looking up the U score on the Mann-Whitney table, the researcher was able to determine the probability of the occurrence of U. According to the table, the smaller the statistic was, the more significant it was.

Research Findings in Reference to the Hypotheses

The first hypothesis stated that there was no significant difference between the HCJC academic transfer student and HCJC one, two, or three year terminal student in composite ACT test scores. Since the Student's t test has the capability of comparing two samples, the researcher chose it as the test of statistical significance. Because the t Test allows the researcher to measure differences between two samples, he can then make inferences about the relationship of the means of the two samples.

The first step in testing the hypothesis was to determine the size of the samples from the original HCJC population. From the questionnaire, the researcher determined that there were 113 students (which had ACT composite scores) who saw themselves as academic transfer students and 44 students (which had ACT composite scores) who saw themselves as one, two, or three year terminal students. After these two samples were identified the researcher determined the average ACT composite score for each sample. This resulted in a 19.23 composite score for the transfer students and a 17.04 composite for the terminal students.

The following table lists the specific findings as determined by the researcher.

Academic Transfer Student	Males	Females	Total
Number of respondents	67	46	113
Average composite ACT score	19.47	18.89	19.23
The standard deviation	5.67	5.09	5.43
The Variance	32.15	25.91	29.48

One, Two, or Three Year Terminal Students	Males	Females	Total
Number of respondents	25	19	44
Average composite ACT score	16.25	17.73	17.04
The standard deviation	3.95	4.87	4.36
The Variance	15.60	23.71	19.01

Using this data, and applying the Student t Test formula, the researcher found the following results:

$$t = \frac{(M_1 - M_2) - (U_1 - U_2)}{\sqrt{\frac{S^2}{N_1} + \frac{S^2}{N_2}}} = = \frac{19.23 - 17.04}{\frac{16.03}{113} + \frac{16.03}{44}} = 3.08$$

(The reader should note that since the researcher assumed $U_1 = U_2$, then $U_1 - U_2 = 0$).

According to the theory inherent in the Student's t test a t score must fall between -1.96 and +1.96 (at the .05 significance level) to support the hypothesis. Since the score of 3.08 obviously lies outside this range, the findings failed to support the hypothesis. At the .01 significance level, the scores must fall between -2.58 and +2.58. Thus, the hypothesis was rejected even at this level.

The second hypothesis stated that there was no significant difference between the HCJC academic transfer student and HCJC continuing education student in composite

ACT test scores. In this case, the researcher again felt that the Student t test was applicable as the test of significance. As in the first hypothesis the researcher was interested in comparing the means of the two samples. By comparing the means, the researcher was capable of determining whether or not the performance of the continuing education student was different from the academic transfer student.

The initial step in testing this hypothesis was to determine the number in each of the samples. Again referring to the questionnaire, the researcher was able to determine these numbers. In the academic transfer student sample the number of students who had ACT composite scores was 113. The continuing education students totaled 33 with ACT composite scores. Next the researcher determined the average ACT composite score for each sample. This resulted in a 19.23 composite score for the academic transfer student and a 16.45 composite score for the continuing education students.

The following table gives the data related to the hypothesis.

Academic Transfer Student	Males	Females	Total
Number of respondents	67	46	113
Average composite ACT score	19.47	18.89	19.23
The standard deviation	5.67	5.09	5.43
The Variance	32.15	25.91	29.48

Continuing Education Student	Males	Females	Total
Number of respondents	23	10	33
Average composite ACT score	16.08	17.30	16.45
The standard deviation	4.23	4.54	4.29
The Variance	17.89	20.61	18.40

Again, by using the Student t formula, the researcher obtained the following results.

$$t = \frac{(M_1 - M_2) - (U_1 - U_2)}{\sqrt{\frac{S^2}{N_1} + \frac{S^2}{N_2}}} == \frac{19.23 - 16.45}{\frac{18.84}{113} + \frac{18.84}{33}} = 3.24$$

(The reader should note that since the researcher assumed $U_1 = U_2$, then $U_1 - U_2 = 0$).

Because the 3.24 lies outside the -1.96 and +1.96 acceptance region (at the .05 significance level), the data failed to support the hypothesis. Even at the .01 significance level, the 3.24 lies outside the -2.58 and +2.58 acceptance region, therefore, again rejecting the hypothesis.

The third hypothesis stated that there was no significant difference between the HCJC one, two, or three year terminal student and the HCJC continuing education in composite ACT test scores. Again, because of the adaptability of the Student t test, the researcher chose

it as the test of significant difference. Because the researcher wanted to test the means of the samples the Student's t Test was used, particularly in reference to the performance on the ACT by the terminal students versus the performance on the ACT by the continuing education student.

To begin the comparison the researcher determined the number of students in each sample. From the questionnaire he found the terminal students had a total of 44 with ACT composite scores, whereas the continuing education students had a total of 33 with ACT composite scores. After the sample size was determined the average ACT composite score for each sample was made. The average composite score for the terminal students was 17.04 and for the continuing education students it was 16.45.

The following table represents the findings in relation to this hypothesis.

One, Two, or Three Year Terminal Students	Males	Females	Total
Number of respondents	25	19	44
Average composite ACT scores	16.25	17.73	17.04
Standard deviation	3.95	4.87	4.36
The Variance	15.50	23.71	19.01
Continuing Education Students	**Males**	**Females**	**Total**
Number of respondents	23	10	33
Average composite ACT scores	16.08	17.30	16.45
Standard deviation	4.23	4.54	4.29
The Variance	17.8[illegible]	20.61	18.40

From the Student's t formula, the following results were determined.

$$t = \frac{(M_1 - M_2) - (U_1 - U_2)}{\sqrt{\frac{S^2}{N_1} + \frac{S^2}{N_2}}} \quad == \quad \frac{17.04 - 16.45}{\frac{18.75}{44} + \frac{18.75}{33}} = .59$$

(Again, the reader should note that the researcher assumed $U_1 = U_2$, therefore $U_1 - U_2 = 0$.)

The score .59 fell within the -1.96 and +1.96 range determined by the Student t. Therefore, the data appeared to support the hypothesis.

The next hypothesis dealt with the reasons and factors which affect a HCJC student's choice of college. Specifically, the hypothesis stated that there was no significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal student in the factors affecting his college choice. In testing this hypothesis, the researcher used the Mann-Whitney U test. Because the Mann-Whitney U test can determine whether two unmatched random samples of measurements actually represent the same parent group, the researcher chose it to test the hypothesis dealing with factors which affect college choice. The researcher was of the impression that if a significant score was determined then he could make adequate assumptions about the various factors which influence a student's choice of a college.

In testing the hypothesis the initial step was to get an average ranking of each factor which affected a student's choice of a college. (It is important to note that the smaller the number, the more important the student perceived this factor in making his college choice). This was done for each of the samples. According to the Mann-Whitney, each of these averages for both samples should be pooled and ranked. This is what was done.

The following table gives the specific data related to this hypothesis.

Academic Transfer Student	Male (77)	Female (47)	Total (124)	Mann-Whitney Rank
Average rating of factors that influence college choice				
1. Intellectual emphasis	2.31	2.44	2.36	4
2. Practicality	2.31	1.91	2.16	2
3. Advice of others	2.89	3.04	2.95	5
4. Social emphasis	3.93	4.29	4.07	10
5. Emphasis on religious and ethical values	5.27	5.70	5.44	11
6. Size of school	4.20	3.59	3.98	9
One, Two, or Three Year Terminal Student	**Male (31)**	**Female (24)**	**Total (55)**	**Mann-Whitney Rank**
Average rating of factors that influence college choice				
1. Intellectual emphasis	2.12	2.00	2.07	1
2. Practicality	2.34	2.37	2.34	3
3. Advice of others	3.22	3.25	3.24	6
4. Social emphasis	3.58	4.25	3.87	7
5. Emphasis on religious and ethical values	5.41	5.58	5.49	12
6. Size of school	4.29	3.54	3.96	8

The following procedure was used to calculate the U score:

U = the number of times a N_A score precedes a N_B score. Hence, U = 0 + 1 + 3 + 3 + 3 + 6 = 16.

From the table of values associated with the Mann-Whitney Test, the researcher found a U value of 16 results in a probability of .818 that the samples were from the same population. In other words, there was nearly an 82 out of 100 possibility that the scores came from the same population. Therefore, the data appeared to support the hypothesis.

The next hypothesis stated that there was no significant difference between the HCJC academic transfer student and the HCJC continuing education student in factors affecting his college choice. Because the researcher was again concerned with comparing the average of the two samples, the Mann-Whitney U test was chosen as the test of statistical significance.

Procedurally, the same method was used as in the aforementioned hypothesis testing. Initially, the researcher obtained an average ranking of each factor which affected a student's choice of a college. (Again, the smaller the number, the more important the factor.) This was done for both samples. Then the average scores for both samples were pooled and ranked.

The following table represents the findings in reference to this hypothesis.

Academic Transfer Student	Male (77)	Female (47)	Total (124)	Mann-Whitney Rank
Average rating of factors that influence college choice				
1. Intellectual emphasis	2.31	2.44	2.36	3
2. Practicality	2.31	1.91	2.16	2
3. Advice of others	2.89	3.04	2.95	5
4. Social emphasis	3.93	4.29	4.07	8
5. Emphasis on religious and ethical values	5.27	5.70	5.44	12
6. Size of school	4.20	3.59	3.98	7
Continuing Education Student	**Male (32)**	**Female (24)**	**Total (56)**	**Mann-Whitney Rank**
Average rating of factors that influence college choice				
1. Intellectual emphasis	2.59	2.45	2.54	4
2. Practicality	1.84	1.50	1.70	1
3. Advice of others	3.15	3.16	3.16	6
4. Social emphasis	3.81	4.87	4.27	10
5. Emphasis on religious and ethical values	5.31	4.91	5.14	11
6. Size of school	4.28	4.08	4.19	9

To calculate the U score, the researcher used the following procedure:

U = the number of times a N_A score precedes a N_B score. Hence, U = 0 + 2 + 3 + 5 + 4 = 14.

According to the tables associated with the Mann-Whitney, a U value of 14 resulted in a .588 probability that the two samples were from the same population. Thus, there was a 59 out of 100 chance that the samples were from the same population. Accordingly, the data appeared to support the hypothesis.

The final hypothesis stated there was no significant difference between the HCJC one, two, or three year terminal student and the continuing education student in factors affecting his college choice. Again, the researcher used the Mann-Whitney test as the test of significance. Because he was again concerned with whether or not the two samples came from the same population, the Mann-Whitney was used.

To test this hypothesis the first step was to determine the average ranking of each factor affecting a student's choice. (Again, the smaller the score, the higher the ranking.) This was done for both samples. Next, the averages for both samples were pooled, then they were ranked.

The following table gives the specific findings in reference to this hypothesis.

Terminal Student	Male (31)	Female (24)	Total (55)	Mann-Whitney Rank
Average rating of factors that influence college choice				
1. Intellectual emphasis	2.12	2.00	2.07	2
2. Practicality	2.35	2.37	2.36	3
3. Advice of others	3.22	3.25	3.25	6
4. Social emphasis	3.58	4.25	3.87	7
5. Emphasis on social and ethical values	5.41	5.58	5.49	12
6. Size of school	4.29	3.54	3.96	8

Continuing Education Student	Male (32)	Female (24)	Total (56)	Mann-Whitney Rank
Average rating of factors that influence college choice				
1. Intellectual emphasis	2.59	2.45	2.54	4
2. Practicality	1.84	1.50	1.70	1
3. Advice of others	3.15	3.16	3.16	5
4. Social emphasis	3.81	4.87	4.27	10
5. Emphasis on social and ethical values	5.31	4.91	5.14	11
6. Size of school	4.28	4.08	4.19	9

In calculation of the U score, the following procedure was used: $U = 1 + 1 + 3 + 3 + 3 + 6 = 17$.

U = the number of times a N_A score precedes a N_B score.

By consulting the tables associated with the Mann-Whitney test, the researcher found that a U score of 17 resulted in .938 probability that the two samples came from the same population. From these findings, the researcher concluded that the data appeared to support the hypothesis.

Summary

From the results of the statistical tests the following conclusions were made:

1. There appeared to be a significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal student in composite ACT test scores.

2. There appeared to be a significant difference between the HCJC academic transfer student and the HCJC continuing education student in composite ACT test scores.

3. There appeared to be no significant difference between the HCJC one, two, or three year terminal student and the HCJC continuing education student in composite ACT test scores.

4. The reasons and factors which affected an HCJC academic transfer student's choice of HCJC appeared to be statistically the same as those factors which affected an HCJC one, two, or three year terminal student's choice of HCJC.

5. The reasons and factors which affected a HCJC academic transfer student's choice of HCJC appeared to be statistically the same as those factors which affected a HCJC continuing education student.

6. The reasons and factors which affected a HCJC one, two, or three year terminal student's choice of HCJC appeared to be statistically the same as those factors which influenced a HCJC continuing education student's choice of HCJC.

Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was twofold: (1) to make comparisons between Hutchinson Community Junior College (HCJC) academic transfer students, one, two, or three year terminal students, and continuing education students in reference to Composite ACT test scores and (2) to make comparisons between HCJC academic transfer students, one, two or three year terminal students, and continuing education students in what reasons and factors led to their decision to attend HCJC.

To get at the nature of the purpose of the study, the following hypotheses were tested:

1. There is no significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal student in composite ACT test scores.

2. There is no significant difference between the HCJC academic transfer student and the HCJC continuing education student in composite ACT test scores.

3. There is no significant difference between the HCJC one, two, or three year terminal student and the HCJC continuing education student in composite ACT test scores.

4. There is no significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal student in the factors affecting his college choice.

5. There is no significant difference between the HCJC academic transfer student and the HCJC continuing education student in the factors affecting his college choice.

6. There is no significant difference between the HCJC one, two, or three year terminal student and the continuing education student in the factors affecting his college choice.

To test these hypotheses, the following procedures were used:

1. Initially, a random sample of two hundred fifty students was chosen by using the pseudorandom number generator supplied by an IBM program.

2. These students' (individually) composite ACT test scores were then determined.

3. At this point, a questionnaire was administered to the students selected in the random sample.

4. Upon return of the questionnaires, students were broken into three categories: academic transfer student, one, two or three year terminal student, and continuing education student.

5. For each of the categories the mean and standard deviation was determined. Then, the "Student's" t distribution was calculated. Thus, the difference of the means was the significance test to determine whether or not the hypothesis was accepted.

6. Returning to the questionnaire, students' responses to the question dealing with factors influencing college choice was used. Since the students had ranked the factors for their choice of HCJC on the questionnaire, this information was tested for significance by using the Mann-Whitney Test which is a rank-sum test.

In the collection of the data, two hundred thirty-five out of two hundred fifty questionnaires were returned. This represented ninety-four percent of the total number. This high percentage was due to the cooperation the researcher

received from the faculty at HCJC. Unfortunately, not as many Composite ACT test scores were obtained. In fact, only one hundred ninety-five out of the two hundred thirty-five were obtained. This was due to the fact that some students had not taken the ACT test or the college had not received their scores at the time the data was collected.

After collection and analysis of the data, the results lent themselves to the non-rejection of hypotheses three, four, five, and six. However, the data failed to support the first and second hypotheses. The possible reasons for these findings will be discussed in the following section.

Conclusions

The first hypothesis stated that there was no significant difference between the HCJC academic transfer student and the HCJC one, two, or three year terminal students in composite ACT test scores. Using the Student's t test as the test of significance, the results indicated that the data did not support the hypothesis. In other words, the difference between the two group's composite ACT test scores was due to something other than chance at the .05 significance level. The data seemed to suggest the following factors contributing to this difference between students.

(1) A better preparation in the academic areas. Since the ACT composite gives an overall composite of the

student's science, math, English, and social studies scores, there is a distinct possibility that the academic transfer students were better prepared in these areas. Whereas, the one, two, or three year terminal student may have had emphasis of his pre-college training in more vocationally oriented courses, thus leaving him somewhat less better prepared in the academic areas measured by the composite ACT score.

(2) The one, two, or three year terminal student may be more practically oriented than his academic transfer counterpart. The review of the literature revealed that generally community college students seem to be more practical than their counterpart at the four year institutions. This may carry over to the divisions within the community college. Because the terminal student recognizes his program will be over in a span of one to three years, he may be less inclined to concentrate on academic achievement and more on simply "getting it over with." Since this philosophy was most likely generated in the student's pre-college years, he probably did not desire to place emphasis on the academic achievement (which could be reflected in the ACT composite) but rather on the practical application of his training.

(3) Pre-college counseling may affect a student's composite ACT score. A possibility exists that a counselor (high school or junior high counselor, parent, friend, et

cetera) may have guided a student more toward a transfer or terminal academic pursuit. Thus, because the composite ACT measures only the strictly "academic" areas, the student may have scored higher depending on his area of interest. In effect then, counseling helps place a student in a transfer or terminal orientation which later may influence his score on the ACT composite.

The second hypotheses stated there was no significant difference between the HCJC academic transfer student and HCJC continuing education student in composite ACT test scores. At the .05 significance level this hypothesis was rejected, thus implying that there was a difference between the two group's composite ACT scores. This difference may have been due to the following factors:

(1) The academic transfer student may have had different goal orientations than the continuing education student. In their pre-college training the academic transfer student may have had more experience in the areas measured by the ACT composite, thus giving them background in those areas, which was reflected by the ACT composite score. The continuing education student may not have had this experience in these areas.

(2) The continuing education student may have had more difficulty taking the ACT test itself. Since many continuing education students have been out of school for a period of time prior to entering HCJC, they may have forgotten

how to take a test or they may not have many of the basics measured by the ACT well in mind at the time of the test. Accordingly, difficulty may have arisen for them in terms of memory and this may have influenced their scores.

(3) The continuing education student may not recognize the importance of the ACT composite score. Because HCJC requires that all students take the ACT test, many continuing education students may take the test simply to get it over with and not particularly caring about the results. The transfer students on the other hand, recognize the importance in terms of counseling and placement that the test results have. Thus, they may do better or at least have the incentive to do better on the test.

(4) Many continuing education students are attending HCJC for other than academic reasons. By definition the continuing education student does not have to be in any degree program. Thus, he may view the ACT as simply a means to an end (which in this case should be some form of educational enrichment). He may then feel that it is not necessary to exert himself to score well (or as well as he could) on the ACT test.

The third hypothesis stated that there was no significant difference between the HCJC one, two and three year terminal student and the HCJC continuing education student in composite ACT test scores. By using the Student's t test of significance, the data failed to reject this

hypothesis. In other words, the difference between the terminal and continuing education student's composite ACT score was due only to chance.

The fourth hypothesis stated that there was no significant difference between the HCJC academic transfer student and HCJC one, two, or three year terminal student in factors affecting his choice of college. By using the Mann-Whitney test as the test of significance it was possible to determine the probability that the two groups did indeed come from the population. Because this probability was so high (.818) the researcher concluded that in effect there was no significant difference between the factors which influenced the academic student's choice of HCJC and the terminal student's choice of HCJC.

The fifth hypothesis stated that there was no significant difference between the HCJC academic transfer student and the HCJC continuing education student in the factors affecting his college choice. Again the Mann-Whitney test was used as the test of significance. By comparing the groups it was hoped that a difference could be found in the reasons and factors which influenced the student's choice of a college. However, the data failed to reject the hypothesis. This indicated that the same factors influenced a transfer student as influenced a continuing student.

The final hypothesis stated there was no significant difference between the HCJC one, two, or three year terminal student and the continuing education student in factors affecting his college choice. As with the previous two hypotheses the Mann-Whitney test was used as the test of significance. By using the Mann-Whitney test it was determined that there was a 94% probability that the two groups came from the same population. This data appeared to support the hypothesis.

Recommendations

By reviewing the summary of the study and analyzing the conclusions concerning the hypotheses, the following recommendations could be made.

(1) The questionnaire should be expanded in several areas:

(a) Some questions concerning the socioeconomic background of the student would have been useful. These could have included questions in reference to family income, vocation of parents, and educational background of the parents.

(b) Information concerning the size of a student's high school would have been useful in determining the type of community the student was educated in. This type of information would have also been valuable in correlation with (a) from above.

(c) The student's high school grades (for the senior year) and/or high school grade point average would have been of value in correlation with the composite ACT scores. Since both measure some degree of achievement, both could have been used in conjunction with the student classifications determined by the researcher.

(d) An expanded list of factors affecting the student's choice of a college may have served to make more distinction between the student classifications. In other words, with more factors available the possibility of a statistical difference between the groups may have been greater. To expand these factors, the major factors could be broken into the sub-factors (i.e.) practicality could be made into cost, distance from home, and location.

(e) In reference to (d) from above, the list of sub-factors needs to be identified by some specific indicators which in themselves are a more revelant way to get at the nature of the factor (i.e. practicality) than to ask the respondent his opinion. In other words, something concrete and definable needs to be used as indicators.

(2) A second recommendation would have been the setting up of a similar study only using a comparative method. A possibility would have been to compare a publicly controlled community college with a privately controlled two year college (HCJC and Hesston College, for example). By using this type of study, there would be a possibility of the researcher getting at the real factors which influenced a student's choice of a college. Possibly then a cause and effect relationship could be set up (for example, what effect does reputation of a college have on a student's choice of that college).

(3) The final recommendation would be an extension of the study. A study incorporating other community colleges would be of value. For example, the same variables could be tested using four other community colleges from various parts of the state. Schools from the four corners (Colby, Seward County, Independence and Highland) of the state plus HCJC would give an interesting cross section of the community colleges throughout the state.

In this study, the same procedure would be used except the corrections outlined in the previous recommendations about the questionnaire would be considered. By using this procedure comparisons between the community colleges could

be made and in effect determine if there is an actual difference between the student populations of the schools involved. Although some difficulty might arise in obtaining ACT scores, the researcher would be able to gather as much material as possible (perhaps use a more cooperative alternate school) to complete the study.

Chapter Summary

Overall, the study went as planned. For the most part, the collection and analysis of the data went smoothly. The conclusions from the findings were overall acceptable. However, a more accurate representation of the hypotheses could possibly have been made if the researcher would have had more data. Thus, the major recommendation would be to increase the number of participants in the study. A further recommendation would have been an extension of the study to incorporate other community colleges in the state and thus give some comparisons between student bodies.

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APPENDIX A

Inquiry to Hutchinson Community Junior College Students

Dear Student:

You are one of about 2,100 students attending Hutchinson Community Junior College this fall semester. Your cooperation in completing this form will help us make HCJC experiences more worthwhile for future students.

Your replies to the questions will be held in strictest confidence. Only the research team will see your replies. By answering the questions honestly and correctly you will give us information which will be most useful in completing an important study of HCJC.

Personal Data:

A. What is your full name:

_____

Last First Middle

B. A married woman should also give her maiden name:

_____

C. What is your home address:

_____

Street City State Zip code

D. What is your college address:

_____

Street City State Zip code

E. What is your social security number:

_____

Questions:

Directions: Please circle the appropriate response.

1. What is your gender:
   1. Male
   2. Female

2. Do you classify yourself as a full time student?
   1. Yes
   2. No

3. What is your marital status?
   1. Single, never married
   2. Married
   3. Separated
   4. Divorced
   5. Spouse deceased

4. How old will you be on December 31 of this year?
   1. 16 or younger
   2. 17
   3. 18
   4. 19
   5. 20
   6. 21
   7. 22-25
   8. 26-30
   9. 31 or older

5. How many dependents are declared on your IRS form?
   1. 0
   2. 1
   3. 2
   4. 3
   5. 4
   6. 5 or more

6. Which of the following is the most important source of financing your education this year?
   1. Personal savings and/or employment
   2. Parental or family aid
   3. Repayable loan
   4. Scholarship, grant, V.A. benefits, or other gift

7. Do you see yourself as a:
   1. Academic transfer student (that is, you plan to continue your education in a baccalaureate oriented sequence)
   2. One, two, or three year terminal student (that is, you are in a vocational program and will probably seek employment upon the completion of your course requirements)
   3. Continuing education student (that is, you may be holding a degree, working toward a degree, seeking vocational training or retraining, or seeking more education enrichment).

8. What is the highest academic degree that you intend to obtain?
   1. None
   2. Associate of Arts (or equivalent)
   3. Bachelor's degree (B.A., B.S., etc.)
   4. Master's degree (M.A., M.S., etc.)
   5. Doctor of Medicine (M.D.), Doctor of Dental Surgery (D.D.S.), Doctor of Laws, Doctor of Philosophy (Ph.D.) etc.

9. Rank order the following factors (1 through 6 with 1 being the most important and 6 being the least important) as they affected your decision to attend HCJC.

_____Intellectual emphasis -- consideration of the quality of the faculty and scholastic standards, the type of curriculum, the intellectual atmosphere, and the reputation of the school

_____Practicality -- the location of the school, its distance from your home and its cost

_____Advice of others -- including parents, high school teachers and counselors, and college alumni

_____Social climate -- the school's social climate and extra-curricular activities

_____Emphasis on religious and ethical values

_____Size of the school

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